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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,222	06/15/2001	Zhixin Li	1897A.ALC	9268

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EXAMINER

FALASCO, LOUIS V

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 02/13/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/882,222

Applicant(s)

LI ET AL.

Examiner

Louis Falasco

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/07/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 24 is/are pending in the application.
- 4a) Of the above claim(s) 15 - 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

I. Papers received

Information Disclosure Statement - paper #5

II. Claims

The claims are 1 to 24.

III. Restriction Requirement

Restriction to one of the following invention Groups is required under 35 U.S.C. 121:

**Group I** Claims 1 - 14, drawn to a mold, classified in class 425, subclass 501.

**Group II** Claims 15 and 16, drawn to a synthetic rubber article, classified in class 428, subclass 500.

**Group III.** Claims 17 - 19, drawn to a process of coating, classified in class 427, subclass 331.

**Group IV.** Claims 20 - 24, drawn to a release composition, classified in class 526, subclass 72.

The inventions are distinct, each from the other because of the following reasons:

1. Inventions of **Group III** and **Group I** are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2)

the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the process as claimed can be practiced by another, materially different, apparatus such as apparatus to laminate films together at the seams or apparatus to partially split a layer longitudinally to open the middle and form the article.

2. Inventions of **Group III** and **Group II** are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as a process of laminating films together by joining layers together at their seams or a process of cutting, partially splitting a layer along its longitudinally plane to form an opening in the article (glove).

3. Inventions of **Group IV** and those of **Groups I, II, III** are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, the mold release composition of **Group IV** has separate utility such as use as a means in cleaning, in this separate utility the polymer composition containing *hydrophilic* and *hydrophobic* monomers would change chemically from a releasable material, where its physical chemistry repels a mold surface, to a material for cleaning, where the material forms a microscopically heterogeneous mixture, emulsifying normally immiscible phases, as a cleaning agent. This distinctly separate utility changes the chemical nature from adhesive, inert and physically releasing from a molding surface, to a cleaner where it chemically joins immiscible substances to form an emulsion with *hydrophilic* and *hydrophobic* portions of the polymer. See MPEP § 806.05(d).

4. During a telephone conversation with Tomas F. Roland on November 20, 2002 a provisional election was made *with* traverse to prosecute the invention of **Group I** - molding apparatus, **claims 1 - 14**. Applicant in replying to this Office action must make affirmation of this election.

5. **Claims 15 - 24** are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

#### **IV. DETAILED OFFICE ACTION ON ELECTED INVENTION**

THE CLAIMS UNDER CONSIDERATION ARE: 1 TO 14

##### **Rejections under 35 USC 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 2, 5, 6, 7, 10, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted state of the prior art taken with **Lee** (US 5691069) and **Valint, Jr.** (US 5135297).

Admittedly it has been know to include a release composition as ingredient in a molded product (*cf.* specification page 2 lns 24-26), admittedly, it has also been know to include surfactants and dispersants in the composition as well (*cf.* specification page 3 lns 5-25). The admissions do not disclose a water-borne high Tg polymer formed from a *hydrophobic* monomer and a *hydrophilic* monomer, wherein release polymer composition in the product has a Tg of at least -10 degree C. However **Lee** teaches a layer forming a molded product for a glove, having water borne polymeric release polymer formed from a *hydrophobic* monomer and a *hydrophilic* monomer, the layer polymer having a Tg appropriate for manufacturing conditions.

In **Lee** the polymer is formed from monomers selected from monomers that include what applicants characterize as hydrophobic and a *hydrophilic* monomer groupings to form a polymer layer. This is a water borne emulsion (instant claim 2) and the acid monomer that may be selected (instant claim 4) specifically include acrylic acid as well as a monomer from the group including styrene (instant claim 3), see **Lee** monomer groupings of col. 2 lns 33-37, col. 2 ln 61 to col.3 ln 11 and col.4 lns 43-46 and col. 5 lns 7-14. **Lee** also teaches a degree of polymerization optimized to manufacturing conditions providing for polymer having a glass transition temperature above the - 10 C minimum of the claims, see **Lee** col. 5 lines 4-5 and adjustments to manufacturing circumstances, col. 7 lns 3-43. **Lee** has a water borne polymer system, see **Lee** col. 9 lns 5-13, and discloses the mold layer polymer of the in aqueous suspension.

Though **Lee** doesn't recite the polymer as being formed of monomers specified as both *hydrophobic* and *hydrophilic* monomers though such are listed, as pointed out supra. The

selection of both a *hydrophobic* and *hydrophilic* monomer in a polymeric molding compound is taught by **Valint, Jr.** - **Valint, Jr.** shows this mold release layer polymer formed of styrene and acrylic acid monomers, specifying this polymer as composed of *hydrophobic* and *hydrophilic* monomers<sup>1</sup>.

In **Valint, Jr.** the mold polymer is formed of both *hydrophobic* and *hydrophilic* monomers selected from the listing of *hydrophobic* and *hydrophilic* monomers appearing at col. 4 - note also that carboxylic acid is specified as a functional monomer grouping for the *hydrophilic* monomer portion of the polymer for a layer, col. 1 ln 11 - 54 and col. 3 lns 12 - 20, releasing a molded article from their mold, col. 2 ln 37 - 39.

**Valint, Jr.** teaches the additional inclusion of surfactants, see col. 2 ln 45, to the layer and inclusion of cross linking agents for polymerization with the monomers *supra*, see col. 5 ln 34 through col. 6 ln 15. Additionally, **Valint, Jr.** shows adopting additional adjuvants in the molded article layer - note dispersants and adjuvants at col. 1 lns 20-23.

It is the examiners position that it would have been *prima facie* obvious, to one of ordinary skill at the time the invention was made, to adopt the teachings of **Lee** with **Valint Jr.** to the **admissions** of known mold release layer for the purpose of increasing the ease of stripping the layer from the mold (col. 1 lns 11-12 of **Lee**) and enhancing the bio compatibility of the article formed (pointed out in col. 1 lns 12-15 of **Valint Jr.** with reference to a glove). One skilled in this art would have been motivated to adapt the teachings of **Lee** and **Valint Jr.**, in the **admissions** with expectation of successfully

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<sup>1</sup> The polymer is composed of styrene and acrylic acid monomers. It has been held that where claimed and prior art products are identical or substantially identical in structure or in composition, the burden of proof is shifted to applicant to show that the prior art products do not inherently possess the characteristic of a claimed product *In re Best* 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977); *In re Ludke*, 58 CCPA 1159, 441 F.2d at 212-13, 169 USPQ 563 (1971); *In re Brown*, 59 CCPA 1036, 459 F.2d 531, 173 USPQ 685 (1972).

obtaining a glove more efficiently manufactured by simplifying the removal of a molded product from the mold and obtaining a higher quality final article by increasing the bio compatible molded glove article.

2. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted state of the prior art taken with **Lee** (US 5691069) with the teachings of **Valint, Jr.** (US 5135297) as applied to claims 1, 2, 5, 6, 7, 10, 11 and 13 above, and further in view of **Sharma** (US 6107383).

**Lee** with the teachings of **Valint, Jr.** does not disclose dispersants. Applicants point out in the admissions the dispersants as selected from known dispersants (see specifications page 3 ln 25), but do not admit they are known in the polymeric release moldings. **Sharma** teaches the inclusion of dispersants in polymeric molding compositions.

**Sharma** teaches the addition of dispersant (see col. 1 ln 60 – col. 2 ln 11) in aqueous media in polymeric molding layers.

It is the examiners position that it would have been *prima facie* obvious to one of ordinary skill at the time the invention was made to adopt the teachings of **Sharma** of including dispersants in **Lee** and **Valint Jr.** in the **admissions**, where they are admitted as known dispersants, for the purpose of break up adjuvants into a mixed water based polymeric molding composition (see col. 1 lns 26 – 45). One skilled in this art would have been motivated to adapt the teachings of **Sharma**, of including dispersants, with an anticipation of successfully blending additives for the molding composition, obviating undesirable organic solvents in the molding and successfully blending polymeric moldings compositions (col. 2 lns 23- 25).



3. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted state of the prior art taken with **Lee** (US 5691069) with the teachings of **Valint, Jr.** (US 5135297) as applied to claims 1, 2, 5, 6, 7, 10, 11 and 13 above, and further in view of **Plamthottam** (US 5900452).

**Lee** and **Valint Jr.** and the **admissions** do not specify the particle size of the instant claims, however **Plamthottam** teaches the particle size of the instant claims.

In **Plamthottam** see example 9

It is the examiners position that it would have been *prima facie* obvious to one of ordinary skill at the time the invention was made to adopt the teachings of **Plamthottam** in **Lee** and **Valint Jr.** and in the **admissions** for the purpose of enhancing mechanical characteristics of the molded article such as a resistance to cracking, see col. 1 lns 24 - 36. One skilled in this art would have been motivated to adapt the teachings of **Plamthottam** with the anticipation of successfully improving subtleness and a to lessen the crumbliness in the polymeric molding layer.

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted state of the prior art taken with **Lee** (US 5691069) with the teachings of **Valint, Jr.** (US 5135297) as applied to claims 1, 2, 5, 6, 7, 10, 11 and 13 above, and further in view of **Esemplare** (US 5069965).

**Lee** and **Valint Jr.** and the **admissions** do not specify eliminating silicone compounds, however **Esemplare** teaches these silicone compounds as being merely optional in the formation of releasable polymeric moldings.

In **Esemplare** note that silicone compounds may be just optionally added, see col. 6 ln 48.

It is the examiners position that it would have been *prima facie* obvious to one of ordinary skill at the time the invention was made to adopt the teachings of **Esemplare** in **Lee** and **Valint Jr.** in the **admissions** for the purpose of controlling characteristics, such as suppleness of the final molded polymeric product and dispersing adjuvants, increasing the ease of blending more easily in a mixed aqueous media, see col. 6 lns 50 - 60. One skilled in this art would have been motivated to adapt the teachings of **Esemplare** motivated by the anticipation of successfully eliminating characteristics<sup>2</sup> of the silicone in the polymeric molding layer.

5. Claims 8, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted state of the prior art taken with **Lee** (US 5691069) with the teachings of **Valint, Jr.** (US 5135297) as applied to claims 1, 2, 5, 6, 7, 10, 11 and 13 above, and further in view of **Weberg et al** (US 6429158).

**Lee** and **Valint Jr.** do not show, nor do applicants admit, the conventional nature of inclusion of adjuvant materials such as microspheres, rheology modifiers and coagulant. However these are, as shown by **Weberg et al**, conventional additives for releasable polymeric molding layers.

**Weberg et al** points out the conventional nature of having microspheres, rheology modifiers and coagulants in polymeric moldings, see col. 3 lns 40-46,

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<sup>2</sup> Omission of an element and its function is obvious if the function of the element is not desired. See *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989) - the Board affirmed the rejection, holding that it would have been obvious to omit salts where the function attributed to such salt is not desired or required. See also *In re Larson*, 340 F.2d 965, 144 USPQ 347 (CCPA 1965) and *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975) - deleting a prior art component and thereby eliminating its function was an obvious expedient.

the mineral filler 5-200 microns at col. 8 lns 5-25 inherently<sup>3</sup> these appear to be microspheres see lns 63-68, and col. 10, lns 39-44.

It is the examiners position that it would have been *prima facie* obvious to one of ordinary skill at the time the invention was made to adopt the teachings of **Weberg et al** in **Lee** and **Valint Jr.** with the **admissions** for the purpose of controlling shrinkage to aid in extracting the molded article from the mold (col. 2 lns 13-15) and provide a layer useable over a wide range of molding temperature conditions (col. 2 ln 65 - col. 3 ln 13) and geometries (col. 3 lns 40-46) while extending the composition with a light weight easily blended filler and a viscosity modifier. One skilled in this art would have been motivated to adapt the teachings of **Weberg et al** with an anticipation of successfully controlling the rheology of the polymeric molding composition through a wide range of temperatures and process conditions (col. 3 lns 1-14) to successfully molding polymeric articles.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted state of the prior art taken with **Lee** (US 5691069) with the teachings of **Valint, Jr.** (US 5135297) as applied to claims 1, 2, 5, 6, 7, 10, 11 and 13 above, and further in view of **Earls et al** (US 5458020).

**Lee** and **Valint Jr.** do not show nor do applicants admit the conventional nature of microspheres as filler in polymeric moldings. However microspheres are shown by **Earls et al** to be a conventional additive in molding layers, compatible with release of these articles from molds.

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<sup>3</sup> When the USPTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not, as noted previously. *In re Spada* 911 F 2d 705, 709, and 15 USPQ 2d 1655 Fed. Cir. 1990

In **Earls et al** microspheres are shown to be a conventional additive, see col. 17  
lns 41-44.

It is the examiners position that it would have been *prima facie* obvious to one of ordinary skill at the time the invention was made to adopt the teachings of **Earls et al** in **Lee and Valint Jr.** with the **admissions** for the purpose of adding filler to a molded resin, as demonstrated in the examples of **Earls et al**. One skilled in this art would have been motivated to adapt the teachings of **Earls et al** with an anticipation of successfully extending the polymeric molding materials.

## V. DOUBLE PATENTING

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

***Claims 1, 2 and 5 through 14 of instant Application No. 09882222 identical to claims of copending Application No. 09790093***

1. Claim 1, 2 and 5 through 14 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1 through 12 of copending Application No. 09790093. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are

claiming common subject matter, as follows: claims 1 through 12 of copending Application No. 09/790093 are identical to claims 1, 2 and 5 through 14 of the instant application.

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***Claims 3 and 4 of instant Application No. 09882222 obvious over claims of copending Application No. 09790093***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper time wise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b)<sup>4</sup>.

2. Claims 3 and 4 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 through 12 of copending Application No. 09882222 in view of **Plamthottam** (US 5900452).

Claims 1 through 12 of copending Application No. 09790093 do not include the particle size of the instant claims 3 and 4, however **Plamthottam** teaches the particle size of the instant claims. In **Plamthottam** see example 9.

It is the examiners position that it would have been *prima facie* obvious to one of ordinary skill at the time the invention was made to adopt the teachings of **Plamthottam** in claims 1 through 12 of the copending Application for the purpose of enhancing mechanical characteristic of the resultant molded article such as a resistance

to cracking, see col. 1 lns 24 - 36. One skilled in this art would have been motivated to adapt the teachings of **Plamthottam** with the anticipation of successfully improving mechanical flexibility and resistance to cracking in the polymeric molding layer.

## VI. CONCLUSION

The claims are 1 to 24.

- Claims 15 through 24 have been withdrawn from consideration as drawn to a non-elected invention.
- Claims 1 through 14 have been considered.

No claim has been allowed.

## VII. Additional references cited by examiner in this action

- All references cited by applicants in the Information Disclosure Statement have been considered and appended to this action.
- **Lee** (US 5700585) and **Lee** (5993923) are cited as being cumulative to **Lee** (US 5691069) used in the above rejections for supporting the same teaching of teaching a mold release agent.
- **Ansell** (EP O 921133) is cited of interest illustrating the absence of organic silicone compounds in polymeric mold release compositions, this is especially relevant since it is directed to manufacture of medical gloves and illustrates adjuvants such as surfactants and a wide range of manufacturing agents being

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<sup>4</sup> Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A

added to prepare and use the water borne release material release agents (see col. Ins 20-50).

- **Glassock** (US 6355343) is cited of interest showing acrylic polymer mold release surface layers.

### VIII. Inquires

Any inquiry concerning this communication from the examiner should be directed to examiner Louis Falasco, Ph.D. whose telephone number is 703.305-6974. The examiner can normally be reached M-F 9:30 AM – 6:00 PM.

- If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Paul Thibodeau may be reached at 703.308-2367.
- The Fax phone numbers for the organization where this application or proceeding is assigned are: 703.872-9310 for regular communications and 703.872-9311 for After Final communications.
- An inquiry of a general nature or relating to status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308-0651.

*LF*  
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**STEVAN A. RESAN**  
**PRIMARY EXAMINER**